E/ECE/324
E/ECE/TRANS/505 } Rev.1/Add.36/Rev.2/Amend.2

22 April 1997

# AGREEMENT

CONCERNING THE ADOPTION OF UNIFORM TECHNICAL PRESCRIPTIONS FOR WHEELED VEHICLES, EQUIPMENT AND PARTS WHICH CAN BE FITTED AND/OR BE USED ON WHEELED VEHICLES AND THE CONDITIONS FOR RECIPROCAL RECOGNITION OF APPROVALS GRANTED ON THE BASIS OF THESE PRESCRIPTIONS */

(Revision 2, including the amendments entered into force on 16 October 1995)

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*Addendum 36: Regulation No. 37*

***Revision 2 - Amendment 2***

**Supplement 13 to the 03 series of amendments - Date of entry into force: 23 January 1997**

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF FILAMENT LAMPS FOR USE IN APPROVED LAMP UNITS OF POWER-DRIVEN VEHICLES AND OF THEIR TRAILERS

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**UNITED NATIONS**

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*/ Former title of the Agreement:

Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958.

GE.97-21172

List of Contents, annexes, annex 1,

Add at the end of the list new sheets, to read:

"....
Sheets H8
Sheet W16W"

Annex 1, add at the end new Sheets H8/1 to H8/4 and W16W/1, to read as follows:

CATEGORY H8 Sheet H8/1

The drawings are intended only to illustrate the essential dimensions of the filament lamp.

Dimensions in millimetres

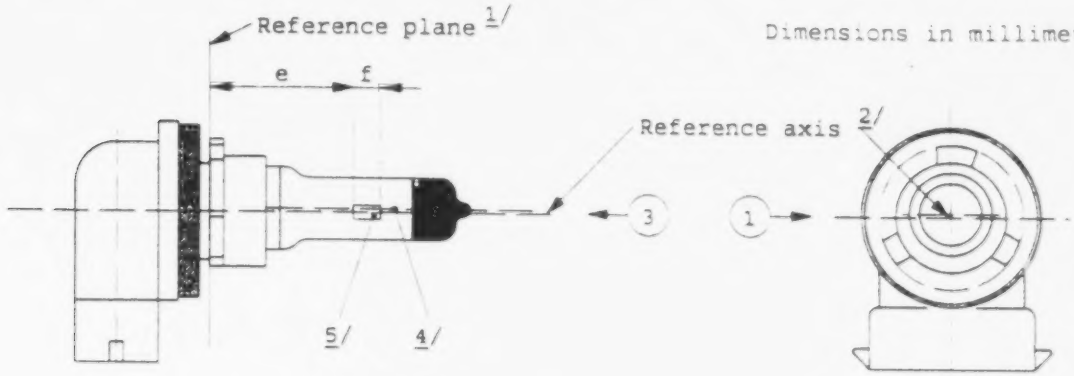



Figure 1
Main drawing

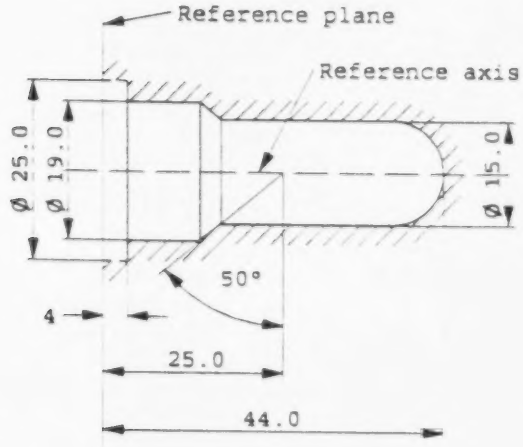



Figure 2
Maximum lamp outline 3/

1/ The reference plane is the plane formed by the underside of the beveled lead-in flange of the cap.

2/ The reference axis is perpendicular to the reference plane and passing through the centre of the 19 mm cap diameter.

3/ Glass bulb and supports shall not exceed the envelope as indicated in figure 2. The envelope is concentric to the reference axis.

4/ The bulb shall be colourless or yellow.

5/ Notes concerning the filament diameter.
- No actual diameter restrictions apply but the objective for future developments is to have d max. = 1.2 mm
- For the same manufacturer, the design diameter of standard (étalon) filament lamp and filament lamp of normal production shall be the same.

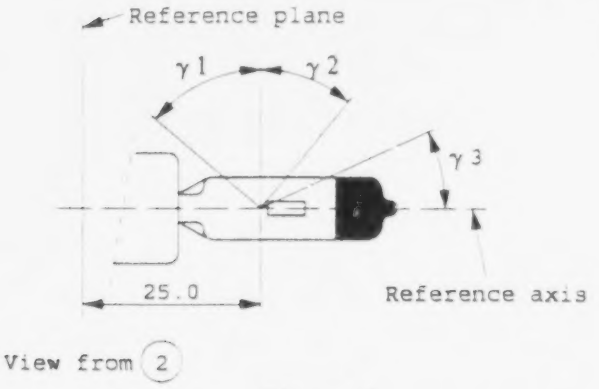



Figure 3
Distortion free area 6/ and black top 7/

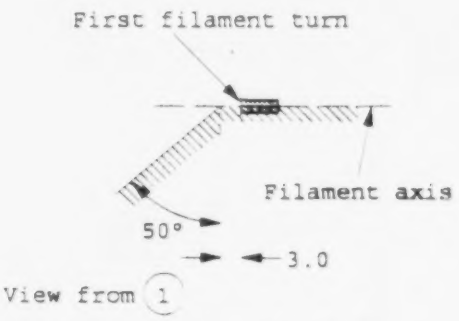



Figure 4
Metal free zone 8/

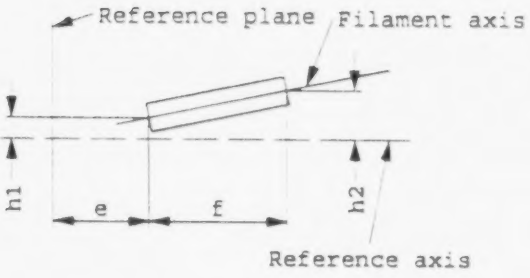



Figure 5
Permissible offset of filament axis 9/
(for standard filament lamps only)

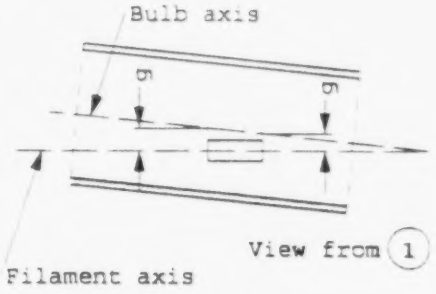



Figure 6
Bulb eccentricity 10/

6/ Glass bulb shall be optically distortion free within the angles $\gamma_1$ and $\gamma_2$. This requirement applies to the whole bulb circumference within the angles $\gamma_1$ and $\gamma_2$

7/ The obscuration shall extend at least to angle $\gamma_3$ and shall extend at least to the cylindrical part of the bulb on the whole bulb top circumference.

8/ The internal design of the lamp shall be such that stray light images and reflections are only located above the filament itself seen from the horizontal direction. (View (1) as indicated in figure 1, sheet H8/1). No metal parts other than filament turns shall be located in the shaded area as seen in figure 4.

9/ The offset of the filament with respect to the reference axis is measured only in viewing directions (1) and (2) as shown in figure 1 on sheet H8/1.
The points to be measured are those where the projection of the outside of the end turns nearest to or furthest from the reference plane crosses the filament axis.

10/ Offset of filament in relation to bulb axis measured in two planes parallel to the reference plane where the projection of the outside of the end turns nearest to or furthest from the reference plane crosses the filament axis.

CATEGORY H8 Sheet H8/3

| Dimensions in mm | | Filament lamps of normal production | | Standard filament lamp |
|---|---|---|---|---|
| | | 12 V | | 12 V |
| e | 11/ | 25.0 | 12/ | 25.0 ± 0.1 |
| f | 11/ | 3.7 | | 3.7 ± 0.1 |
| g | | 0.5 min. | | u.c. |
| h1 | | 0 | 12/ | 0 ± 0.1 |
| h2 | | 0 | 12/ | 0 ± 0.15 |
| $\gamma_1$ | | 50° min. | | 50° min. |
| $\gamma_2$ | | 40° min. | | 40° min. |
| $\gamma_3$ | | 30° min. | | 30° min. |
| Cap PGJ 19 in accordance with IEC Publication 61 (sheet 7004-110-1) | | | | |
| ELECTRICAL AND PHOTOMETRIC CHARACTERISTICS | | | | |
| Rated values | Volts | 12 | | 12 |
| | Watts | 35 | | 35 |
| Test voltage | Volts | 13.2 | | |
| Objective values | Watts | max 43 | | max 43 at 13.2 V |
| | Luminous flux lm | 800 | | |
| | ±% | 15 | | |
| Reference luminous flux for headlamp testing: 600 lm at approx. 12V | | | | |

11/ The end of the filaments are defined as the points where, when the viewing direction is direction (1) as shown in figure 1, sheet H8/1, the projection of the outside of the end turns crosses the filament axis.

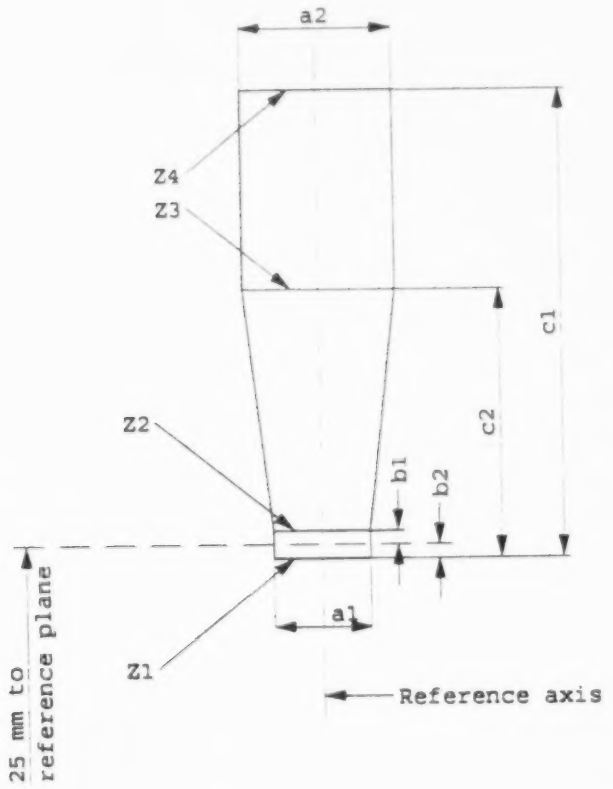
12/ To be checked by means of a "Box System". Sheet H8/4.

CATEGORY H8 Sheet H8/4

Screen projection requirements

This test is used to determine, by checking whether the filament is correctly positioned relative to the reference axis and the reference plane, whether a filament lamp complies with the requirements.

Dimensions in mm




| | a1 | a2 | b1 | b2 | c1 | c2 |
|---|---|---|---|---|---|---|
| 12 V | d + 0.50 | d + 0.70 | 0.25 | | 4.6 | 3.5 |

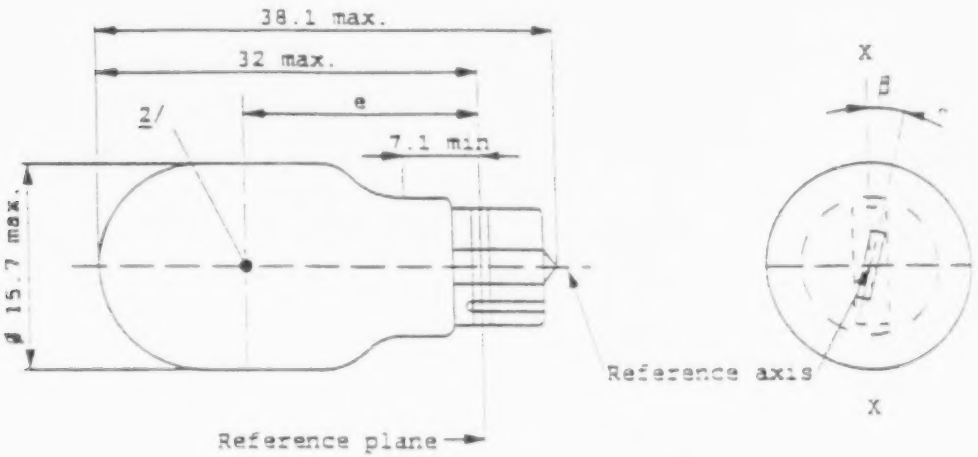
d = diameter of filament

The ends of the filament as defined on sheet H8/3, note 11/, shall lie between lines Z1 and Z2 and between lines Z3 and Z4.

The filament position is checked solely in directions ① and ② as shown on sheet H8/1, figure 1.

The filament shall lie entirely within the limits shown.

CATEGORY W16W Sheet W16W/1




| DIMENSIONS in mm | | Filaments lamps of normal production | | | Standard filament lamp |
|---|---|---|---|---|---|
| | | min. | nom. | max. | |
| e | | 18.3 | 20.6 | 22.9 | 20.6 ± 0.3 |
| Lateral deviation 1/ | | | | 1.0 | 0.5 max. |
| β | | -15° | 0° | +15° | 0° ± 5° |
| Cap W 2.1 x 9.5d in accordance with IEC Publ. 61 (sheet 7004-91-3) | | | | | |
| ELECTRICAL AND PHOTOMETRIC CHARACTERISTICS | | | | | |
| Rated values | Volts | | 12 | | 12 |
| | Watts | | 16 | | 16 |
| Test voltage | Volts | | 13.5 | | |
| Objective values | Watts | | 19.4 | | 19.4 at 13.5 V |
| | ±% | | 10 | | 10 |
| | Luminous flux lm | | 310 | | |
| | ±% | | 20 | | |
| Reference luminous flux: 310 lm at approx. 13.5 V | | | | | |

1/ Maximum lateral deviation of filament centre from two mutually perpendicular planes both containing the reference axis and one containing axis X-X.

2/ See paragraph 3.5.3